

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Canceled).

Claim 2 (Currently Amended): A pump light source device for outputting a pump light to amplify signal lightwaves transmitted into an optical fiber utilizing Raman scattering comprising:

a plurality of pairs of pump light sources,
a plurality ~~of sets~~ of polarization beam combiners or polarization-maintaining optical beam couplers,
a plurality ~~of sets~~ of depolarizers, and
an optical beam coupler for combining a plurality of lightwaves,
the output lightwaves from each pair of light sources being respectively input to a combiner or coupler of the plurality of ~~each set of the said~~ polarization beam combiners or ~~the said~~ polarization-maintaining optical beam couplers to output a composite lightwave ~~of each set~~ with orthogonal state of polarization or maintaining the polarization state of inputting, the each composite lightwave ~~of each set~~ being respectively input to ~~each set~~ a depolarizer of the plurality of depolarizers so as to output depolarized lightwaves ~~for each set~~ with a lower degree of polarization, ~~and wherein~~ the depolarized lightwaves ~~for each set~~ being combined and output by the optical beam coupler.

Claim 3 (Currently Amended): A pump light source device for outputting a pump light to amplify signal lightwaves transmitter into an optical fiber utilizing Raman scattering comprising:

a plurality of pairs of pump light sources,
a plurality ~~of sets~~ of polarization beam combiners or polarization-maintaining optical beam couplers,

a depolarizer, and

a polarization beam combiner or polarization-maintaining optical multiplexer for combining a plurality of lightwaves,

the output lightwaves from each pair of pump light sources being respectively input to ~~each set~~ a combiner or multiplexer of the said polarization beam ~~combiner~~ combiners or the ~~said~~ polarization-maintaining optical beam ~~coupler~~ couplers so as to output a composite lightwave ~~of each set~~ with orthogonal state of polarization or maintaining the relationship of inputting, after ~~the~~ each composite lightwave ~~of each set~~ is being combined by the polarization beam combiner or polarization-maintaining optical beam coupler, the combined lightwaves being input to the depolarizer so as to output lightwaves with a lower degree of polarization.

Claim 4 (Canceled).

Claim 5 (Currently Amended): A pump light source device for outputting a pump lights to amplify signal lightwaves transmitted into an optical fiber utilizing Raman scattering comprising:

one or a plurality of pairs of pump light sources,

one or a plurality of individual light sources which are different therefrom,

a plurality ~~of sets~~ of polarization beam combiners or beam combiners or polarization-maintaining optical beam couplers,

a polarization-maintaining optical multiplexer for combining a plurality of lightwaves,
and

a depolarizer, wherein

~~the output lightwaves from each pair of pump light sources being respectively input to each set~~ a combiner or coupler of the plurality of the said polarization beam combiners or the said polarization-maintaining optical beam couplers to so as output a composite lightwave ~~of each set~~ with orthogonal state of polarization or maintaining the relationship of inputting, ~~the composite~~ each lightwave ~~of each set of the lightwaves~~ output from the one or plurality individual light sources being combined by the polarization-maintaining optical beam coupler, and the combined lightwaves being input to the depolarizer so as to output a lightwave with lower degree of polarization as a pump light.

Claim 6 (Previously Presented): A pump light source for Raman amplification according to any one of claims 2, 3, and 5, wherein the depolarizer consists of a birefringent material having different refractive indexes at principal axes, and is arranged such that an angle between polarization of each lightwave of the composite lightwave output from the polarization beam combiner or the polarization-maintaining optical beam coupler and the optical principal axis of the birefringent material is 45 degrees, the composite lightwave being depolarized in the birefringent material.

Claim 7 (Original): A pump light source device for Raman amplification according to claim 6, wherein the birefringent material consists of rutile.

Claim 8 (Original): A pump light source device for Raman amplification according to claim 6, wherein the birefringent material consists of calcite.

Claim 9 (Original): A pump light source device for Raman amplification according to claim 6, wherein the birefringent material consists of a polarization maintaining optical fiber.

Claim 10 (Previously Presented): A pump light source device for Raman amplification according to claim 6, wherein the depolarizer consists of a LYOT type depolarizer in which two birefringent material, the length of one of them different from that of the other in ratio of more than 1:2, are connected such that the respective optical principal axes differ from each other by 45 degrees.

Claim 11 (Previously Presented): A pump light source device for Raman amplification according to claim 6, wherein an optical isolator is provided in one or more of the following: an optical path on the input side of the depolarizer, an optical line on the output side of the depolarizer, and the interior of the depolarizer.

Claim 12 (Previously Presented): A Raman amplification system comprising:
a light transmitting station for transmitting signal lightwaves, a light receiving station for receiving the signal lightwaves,
an optical fiber for propagating the signal lightwaves from the light transmitting station to the light receiving station, and
a Raman amplification pump light source device for introducing a pump light into the optical fiber to amplify the signal lightwaves using stimulated Raman scattering process, wherein
said Raman amplification pump light source device consists of a pump light source device for Raman amplification as claimed in claim 6.